

THE REFORM OF THE JULIAN CALENDAR.**ROSCOE LAMONT.***(Continued from page 646, Vol. XXVII.)*

The Papal Bull was printed in 1582 in a small booklet of thirty leaves, which contained also the privilege of the Pope given to the printer; canons of the calendar treating of the lunar cycle of nineteen years, the solar cycle of twenty-eight years, the cycle of epacts, etc.; the calendar for 1582 from October to December. table giving the dates of the movable feasts for the year 1583, with the dominical letter, golden number and epact; table giving the dates of the new moons for October, November and December, 1582, and the whole of 1583, and some other tables. The sole right to print this work was given to Antonius Lilius, who had been a member of the papal commission and whose brother was the author of the plan adopted, and the Pope prohibited, under penalty of excommunication, the printing of the calendar by any one without permission. The result was that a sufficient number of copies was not printed and distributed so as to be received in all places in time to make the correction on the date indicated. In the greater part of Italy the change was made at the time directed, copies being printed in Venice, in Italian, marked "Permissu D. Antonii Lili MDLXXXII." Spain and Portugal also made the change in October 1582. In the Catholic states of Germany and the Netherlands the reformed calendar was introduced by calling the day following December 21, 1582, January 1, 1583, those countries having no Christmas day in 1582. In France the day following Sunday, December 9, 1582, was called Monday, December 20, the edict of Henry Third being dated the third of November.

Sedan, now a province of France, but which in 1582 enjoyed what is called full sovereignty, although a hotbed of Calvinism, followed the example of France in adopting the new calendar. In the *Revue d'Ardenne et d'Argonne* for July 1897, Paul Collinet gives the following ordinance issued by the regent in 1582 on the fifth of December, which was published in the public places of the city at the sound of the trumpet on the eighth of the same month:

"Madame in her Council, having seen the reformation of the calendar which has been newly made, and wishing to be in accord with the princes and neighboring countries in the calculation of times and seasons for the facility of commerce, desires and directs that on the expiration of the ninth day of the present month, the day following, which would be counted the tenth, be named and counted the twentieth, the day after that the twenty-first, the fifteenth the twenty-fifth, and so on, so that the following year, which will be counted the fifteen hundred eighty-third, will begin on the twenty-second of the present month by the former reckoning. Said Madame declaring, however, that she does not intend that this omission shall be prejudicial to any actions, obligations, limitations of time, terms and

prescriptions, which she wishes to have their perfect course, notwithstanding the subtraction of the said days, the same as if it had not been made. Done in the said Council the fifth of December, 1582.

FRANCOISE DE BOURBON."

In the Catholic Encyclopedia, where one would expect to find accurate information about the Popes, it is stated in the life of Gregory XIII that the reformed calendar was introduced into most Catholic countries in 1578 (four years before its publication). The Protestant countries, however, after the time fixed for the acceptance of the New Style, as it was called, continued to use the Julian calendar as before, and actively opposed the adoption of the reform, a witticism of the time being that the Protestants would rather disagree with the sun than agree with the Pope. But religious disputes had been so bitter that anything emanating from Rome found no favor in the eyes of the Protestants. The massacre of Saint Bartholomew had occurred only ten years before, and it was recalled that the Pope then reigning had attended Church to hear the *Te Deum* sung in celebration of that event. The Protestants also disliked the language of the papal decree. When they read that the wrath of the omnipotent God and of His blessed Apostles Peter and Paul would be invoked on any one who refused to abandon a mode of reckoning that had been in use for more than sixteen hundred years, instead of the wrath being turned away with a soft answer, their own anger, like Moses', waxed hot. It is stated in Pfeffel's History of Germany that when the question of adopting the Gregorian calendar came up in the Diet of Augsburg in 1582, "the project, very reasonable in itself, would no doubt have been accepted without difficulty if the states had not been offended by the imperious and absolute tone with which the Pope had ordered them to follow his calendar. This circumstance, very foreign to the heart of the matter, excited at first discontent and general clamor against the proposal of the Pontiff. But the first resentment having been calmed by time and by reflection, the Princes and the Catholic States consented successively to receive the Gregorian style, but it was not the same with the Protestants, their aversion for anything coming from Rome determining them to hold invariably to the Julian calendar."

Nearly one hundred twenty years elapsed before the Protestant States of Germany accepted the new calendar, which they then camouflaged and called an "improved calendar". One province, however, received it a little in advance of the rest. About 1681 Alsace was conquered by Louis XIV, and the Gregorian calendar was introduced on March 1, 1682.

In Switzerland most of the Catholic Cantons adopted the New Style January 1, 1583, Unterwalden raising some objections and not accepting it until 1584. In Appenzell, where both Catholics and Protestants were numerous, the Gregorian calendar was adopted in 1584, but this action produced such violent disputes between the adherents of the two religions that civil war was feared. In 1590 the Canton was

divided, one part being Protestant and the other Catholic, and the Protestants restored the Julian calendar. In the other Cantons which contained followers of both parties an amicable arrangement was made. It was stipulated that the Protestants might keep their festivals according to the old calendar, and that on those days their Catholic brethren would cease their labors until noon, and that, reciprocally, the Catholics would celebrate their feasts according to the new calendar, and their Protestant friends were likewise to abstain from work until midday. Most of the Protestant Cantons adopted the new calendar January 12, 1701, but Appenzell continued for a long time afterward to make use of the calendar of Julius Caesar, and not until 1812 was the Gregorian calendar used throughout all of Switzerland.

The Registers of the Council of Geneva (the new capital of the world) contain the following with reference to the introduction of the Gregorian calendar into that place:

"In the name of God, Father, Son and Holy Spirit, Amen. Commencement of the eighteenth century. Wednesday, the day on which the eighteenth century commences, to be counted the twelfth of January, 1701, in consequence of the acceptance of the new calendar and of the publication that was made through all the city at the sound of the trumpet, some weeks ago, placarded and posted in all the crossroads in these terms: We make known to all persons that for the benefit and advantage of commerce and other good considerations, our Most Honored Seigniors have found it opportune to follow in future the new calendar after the example of most of the Princes and Protestant States, and in particular the Evangelical Cantons, their very dear allies and confederates, and that to effect this the month of January next will begin on the twelfth, the day after the last day of the present month of December being thus counted. Commanding all persons, public and private, to conform thereto, both in the city and in the lands of the Seigniory".

In the German histories of the *Kalenderstreit*, the word used by the Germans to denote the strife over the calendar, there are accounts of numerous pamphlets and poems that were published on the subject, and while the wit is for the most part witless, some of them, though a little coarse, are quite amusing. Some peasants, represented as discussing the matter, are unable to see the necessity for any change in a calendar according to which Christ was born. The old calendar must be the right one for the animals still use it. The stork flies away according to it, the bear comes out of his hole on the Candlemas day of the old calendar and not of the Pope's, and the cattle stand up in their stalls to honor the birth of the Lord on the Christmas night of the old and not of the new calendar. They also recognize in this work diabolical wickedness. The Pope was afraid the last day would come too quickly. He has made his new calendar so that Christ will get confused and not know when to come for the last judgment, and the Pope will be able to continue his knavery still longer. May Gott him punish.

This is not bad at all for a German, and the reason humorously given for the reform is equal to the one advanced seriously by a Tübingen professor named Osiander, in a work published in 1583, the character of which can be judged by samples. He declares they will have noth-

ing to do with a calendar made by the Pope, which was produced merely to sell, as indulgences were formerly sold, but as this trade has been broken up, he has replaced it with one that will pay better. Indulgences were sold only in certain specified years, but the calendar will be sold every year. He will probably order the starry heavens to go in accordance with it, and if astronomers should point out a disagreement, they will say at Rome it is not the Pope's fault, but that Joshua was the cause of this disorder by commanding the sun and moon to stand still; if he had let them alone and allowed them to continue their orderly course without interruption, the motions of the sun and moon would agree with the Gregorian calendar to a hair in each and every point.

Although the Protestants and some of the animals refused to make use of the Pope's calendar, inanimate objects were not so stubborn. A wonderful miracle was reported by an inquiring traveler. At Campolongo in Friuli, Italy, fourteen miles from Görz, there was a walnut tree which every year was bare until the night before Saint John's day, when suddenly leaves and blossoms were put forth, and little nuts appeared which ripened in due season. This had always happened on a fixed day of the old calendar, but the reformed calendar having been introduced in Friuli in October 1582, the miracle was performed in 1583 on the right day of the new calendar. The traveler reports that he hastened to the place to obtain branches from the tree and says: "I have today sent a branch, broken off on Saint John's day, to Herr von Dietrichstein, who no doubt will show it to the Kaiser." (At that time they had a Kaiser).

The Italian astronomer Riccioli, the most learned of all the opponents of Copernicus, states in his "Chronology Reformed and Reduced to Certain Conclusions," published in 1669, that a barren rod, which had been planted in a garden one Christmas eve, produced leaves, blossoms and fruit that same night, and that after the Gregorian correction the same thing occurred yearly on Christmas eve of the new calendar, and he says that when in Parma in the year 1629 he saw a branch from that tree sent from the Court of Vienna.

Although many of the learned men among the Protestants were opposed to the reformed calendar, there were two notable exceptions, Tycho Brahe and Kepler, the most famous astronomers of the time. Tycho set forth his opinion in his letters, the Latin text of two of which is given by Ferrari, and Dreyer, in his *Life of Tycho Brahe*, makes the following reference to this matter:

"With Johannes Major Tycho corresponded about the Gregorian reform of the calendar, which was promulgated in 1582, and ordered to be adopted by the Catholic world under threat of excommunication. In consequence of this, Protestants refused to make any alteration in the calendar. At Augsburg several members of the civic council had voted against the adoption of the new calendar for theological reasons, and when the mayor, in consequence, tried to arrest and carry off the principal theologian of Augsburg, the population rose in arms and set him free. When asked for his opinion, Tycho very sensibly remarks that if

the Pope at the time of Regiomontanus (that is, before the Reformation) had improved the calendar, Luther would most assuredly not have wished to interfere with it, as this matter had nothing to do with religious doctrines, and why should not the new calendar, approved of by the emperor, be accepted, as the Nicaean calendar-rules were still accepted even by Protestants?"

Kepler advocated the adoption of the reformed calendar in a work entitled "Dialogue on the Gregorian Calendar", published about 1612. This was not very favorably received, however, especially in the theological world, for Lersch, in his "Introduction to Chronology", states that when Kepler entered upon his duties in Linz he was not allowed to partake of the communion because of his calendar writings.

When the thirty years' war came to an end in 1648, an effort was made, though unsuccessful, to have the Gregorian calendar accepted by the Protestant States of Germany; but as the end of the century approached steps were taken, largely through the influence of Leibnitz, to make the change, and in the year 1700 what was styled "an improved calendar" was adopted. In that year the day following February 18 was called the first of March, but the date of Easter was to be determined by astronomical calculation instead of by the method explained by Clavius. It was declared that this act did not proceed from any condescension to the Roman Catholics, nor was it to be interpreted as an acceptance of the Gregorian calendar, as the omission of eleven days simply reduced the calculation of time to the course of the sun the same as it was before the Nicene Council, and the astronomical computation of Easter would be an annual and perpetual protest against the injunction of Pope Gregory.

Since the Catholics and Protestants used different methods in computing the date of Easter, they sometimes celebrated that festival on different dates. This occurred in 1724 when the Protestants celebrated Easter on April 9 and the Catholics on April 16, and in 1744 the Easter of the Protestants was on March 29 and that of the Catholics on April 5. This would also have happened in 1778, but as the Easter of the Protestants would come on the same day as the Jewish Passover, the Protestants preferred to agree with the Catholics rather than with the Jews. In 1774 the minister of the King of Prussia presented, in the name of his master, to the Diet of Ratisbonne a rescript stating that "His Prussian Majesty, foreseeing that in 1778 the Easter of the Protestants would not come on the same day as that of the Roman Catholics, and that it might occasion some trouble because it coincided with the Passover of the Jews, desired that the states of the empire take suitable measures in order that the two Christian communions should celebrate Easter on the same day, especially in the states where the two worships were equally authorized by law." The King declared that he had fixed the festival of Easter for the year 1778 on the nineteenth of April, instead of on the twelfth of April as calculated astronomically, in order not to celebrate it on the same day the Jews celebrated the Passover, the Jewish calendar placing their feast on April

12. In November 1774 the Diet unanimously declared that henceforth they would conform to the Gregorian calendar in fixing the date of Easter.

Until the time of Peter the Great, Russia, while using the Julian calendar, had not used the Christian Era, but had made use of the Era of Constantinople dating from the creation of the world. It was believed that the world was created on September 1, 5509 B. C., and therefore September 1, 1699, of the Julian Calendar was called in Russia the first day of the year 7208. But on December nineteenth and twentieth of that year decrees were issued by Peter the Great directing that the Christian Era be employed, and that the year begin on January 1 instead of September 1, the new order of things going into effect on the first of the following January, the event being marked by a celebration lasting for a week.

The Russians had come to expect big things of Peter the Great, but they were amazed to learn that even he could change the course of the sun. But not all approved the reform, for many believed that the age of the world had been diminished by hundreds of years, and the elderly Russians, who had grown old under the former system, met in secret to utter their protests. Voltaire, in his life of Peter the Great, says that some obstinate ones, persuaded that the world was created on the first of September, continued to begin the year at that time. The Czar was told that God would not have created the world in winter when the ground could not be cultivated, but in autumn when the corn and all the fruits were ripe, but Peter showed them with a globe that Russia was not the whole world, that in countries far to the south it was warm even in January, and that in the course of time the beginning of the year would be in different seasons since the tropical year was not the same length as the calendar year. It is supposed that the chief reason for not adopting the Gregorian calendar was the fact that England still refused to accept it, and in Russia, previous to the revolution of 1917, the Julian calendar continued to be used. A dispatch from Russia published in the New York Times December 27, 1917, stated that arrangements had been made by the Bolsheviks to introduce the Gregorian calendar in the early part of 1918 by the omission of thirteen days, the day following December 24, 1917, to be called January 7, 1918, Russia by this omission losing the intervening Christmas and New Year's day.

The decree of Peter the Great dated December 19, $\frac{7208}{1699}$, is entitled:

"An Edict of His Imperial Majesty. On the writing henceforth in all papers from the first of January, 1700, since the birth of our Lord, but not since the creation of the world."

The decree of December 20 was one long to be remembered, and an English translation of it, made from the Russian by Mrs. Derman of the Library of Congress, is given as follows:

"December 20, 7208. An Edict of His Imperial Majesty. On the Celebration of the New Year.

"The Grand Emperor ordered to tell: He, the Grand Emperor, is aware that not only in many European Christian countries, but amongst the Slavonian peoples also, which in everything are in conformity with our Eastern Orthodox Church, as for instance, amongst the Wallachians, Moldavians, Serbs, Dalmatians, Bulgarians, and the very subjects of the Grand Emperor, the Cherkesses and Greeks, from whom we have embraced our orthodox religion, that all those peoples are counting in conformity their years from the birth of our Lord—eight days later, that is, from the first of January, but not from the creation of the world on account of the many differences in the reckoning of those years. And at present the year 1699 since the birth of our Lord is approaching its end, and on the first of the coming January will conjointly begin the new year of 1700 and the new century.* And for the sake of that good and useful cause, the Grand Emperor has decreed to count henceforth in the Government departments, and in all affairs and deeds to write from the first of this January the year 1700 since the birth of our Lord. And as a token of this good undertaking and of the new century, in the royal city of Moscow, after due thanksgiving to God and supplicant chantings in a church, and, if need, at one's home, by people of distinction on the large and notable streets, thoroughfares and at the houses of the eminent men of clergy and of worldly rank, there should be made opposite the gates, in front of the images of saints, some ornaments of trees and of pine, fir and juniper branches, like those prepared on the bazaar and at the lower drug store, or they may be made as it is more convenient and proper for anyone according to the gates and the place; but everyone of the poor people shall at least place a tree or a branch on the gate or over his house, and it ought to be ready toward the first of the coming January of that year, and the ornaments must be in their places until the seventh day of January of the year 1700. Furthermore, on the first day of January, as a token of merriment, on the mutual greetings of the New Year and of the new century, there should be done the following: As soon as on the Great Red Square the fire amusements are kindled and a cannonade begins, on the notable courtyards the Boyars and Okolnichies, and the Counsellors and the high and distinguished persons of the Court, military and merchants' ranks, everyone on his courtyard, should produce three times a cannonade from small cannons, if they are at one's disposal, and from several muskets or some other kind of small rifles, and shoot rockets, as many as one may have, and on the large streets where there is a space, from the first to the seventh of January should be kindled in the night time fires of firewood, dry branches and straw, but where the courtyards are small, five or six courtyards should be joined in order to make such a fire, or, if one would like, he should place on poles, by one, two or three, resinous and worn out barrels, and after filling them with straw or dry branches, to kindle them; and before the town hall of the burgomaster the cannonade and the same firing and ornaments should be arranged at his discretion."

Soon after the publication of the Gregorian calendar in 1582 the Patriarch of Constantinople promised to have it adopted by the Greeks, but having been accused before the Turks of making an agreement with the Pope and Christian Princes, he was deposed and imprisoned, and the Greeks continued to use the Julian calendar and perhaps still use it.

The year 1700 was a leap year by the Julian calendar but not by the Gregorian, and therefore March 1, 1700, Julian, corresponded to March 12, 1700, Gregorian, the difference then amounting to eleven days. Sweden, however, decided to stay just ten days behind, the same as she had been for over a hundred years, and therefore made

*Most people would say that the year 1701 was the first year of the eighteenth century, but what the Czar decreed was law in his dominions, for he said he had only two lawyers and intended to hang one of them.

the year 1700 a common year. The years 1704 and 1708 were leap years, and in 1712, also a leap year, another day was added to February to compensate for the one omitted in 1700, thus giving 367 days to the year 1712, February having thirty days. The extra day was added in February so that Easter would be celebrated on the Sunday designated by the Julian calendar-rules, it having been found that in 1705, 1709 and 1711, Easter day as observed in Sweden fell one week before the day observed in England where the Julian calendar was used, and this would have happened again in 1712 if another day had not been added. This was due to the fact that the Julian calendar-rules for finding the date of Easter were retained by Sweden. The fourteenth day of the moon on which Easter depended came in 1705, 1709 and 1711, on Sunday, April 1, April 17 and March 25, respectively, of the Julian calendar, and Easter was therefore celebrated on the following Sunday, April 8, April 24 and April 1. But in these years April 1, April 17 and March 25 came on Saturday in Sweden, and Easter by the rule was celebrated the next day, April 2, April 18 and March 26.

From March 1, 1700, to February 30, 1712, Sweden had a calendar unlike any other, it being one day in advance of the Julian and ten days behind the Gregorian. But beginning March 1, 1712, the Julian calendar was again used and continued to be used until 1753. By a rescript dated February 24, 1752, the omission of eleven days was ordered in the next year, the day following February 17, 1753, being called March 1. Previous to this, however, a change was made in the manner of calculating the time of Easter. In 1739 the astronomical method of determining this date was adopted (as used by the Germans with their "improved calendar"), and this was not abandoned until 1844*.

An attempt was made to have the Gregorian calendar adopted by England during the reign of Queen Elizabeth. On March 16, 1584, (the year beginning on March 25) a bill was introduced into Parliament entitled, "An act giving Her Majesty authority to alter and new make a calendar according to the calendar used in other countries", but no action was taken in the matter, and England, not inclined to change anything firmly established, preferred to go on with the old calendar, especially as the alternative was to accept one prepared by direction of the Pope.

In the seventeenth century a plan was formed to adopt the New Style by suppressing the intercalary day in leap year until a sufficient number of days had been dropped, instead of by omitting them all at one time. John Wallis, Professor of Geometry at Oxford, and a noted

*Ginzel, *Handbook of Chronology*, Vol. 3, page 275. Ginzel's account of the adoption of the New Style by Sweden is entirely different from that given by Bond in his *Handy Book of Verifying Dates*, by Montucla in his *History of Mathematics*, and by the *Britannica*, no two of these agreeing. Ginzel's account is based on the works of Goldscheider (1898) and Lindhagen (1909).

mathematician, made the following objection to this procedure:

"In the time of Julius Caesar and Augustus Caesar there was a year which was called *annus confusionis*: upon the settling, unsettling and resettling the Julian year. But if this advice should take place, we should now, instead of one *annus confusionis*, have a confusion for four and forty years together wherein we should agree neither with the old nor with the new account, but be sometimes ten days, sometimes nine days, sometimes eight days, etc., later than the one and sooner than the other account, and a foreigner would not be able to judge of an English date without knowing in which of these years we varied ten, nine or eight days from either of these accounts."

Wallis also in 1699 gave his views on the Gregorian calendar in general, and it was chiefly due to his opposition that the change was not made at that time when the question was under consideration in Germany, Denmark and Sweden, his opinion being as follows:

"That the Julian year is in itself a better form and more advisable than the new Gregorian is undeniable, and all astronomers, even papists themselves (if not otherwise bigoted in favor of the Pope's supremacy and the infallibility of the Roman Church) cannot but know it; in so much that in many cases they are fain (or find it advisable) first to adjust their calculations to the Julian year and thence transfer them to the Gregorian. And there is no inducement for our changing our better year for a worse, but only in compliance with the Pope's pretended supremacy, not only over all churches and kingdoms, but even the celestial motions (as Pope Gregory, in his Bull, doth wisely pretend)."

At last, however, Lord Chesterfield took up the matter, and with the aid of Lord Macclesfield, afterwards President of the Royal Society, and James Bradley, astronomer royal, prepared a bill which was introduced into Parliament of February 25, 1750/51 (1751 with the year beginning January 1). The bill was passed without a dissenting vote and received the king's approval on May 22. By this Act the commencement of the year in England was changed to January first, the year 1752 beginning on that date. Since 1155 the year in England had begun on March 25, but in Scotland the change to January 1 was made in the year 1600. By the same Act of Parliament eleven days were omitted in September 1752, the day following the second being called the fourteenth, the English dates then coming into agreement with those of most of the other countries of Europe.

The reason for selecting this date for the beginning of the New Style is nowhere stated, but as September 14 was the day on which the papal commission, nearly two centuries before, made its report to Pope Gregory, it may be that England, after this long interval, wished to commemorate this date, and therefore made it notable as the day on which she began to make use of the Pope's calendar.

Lord Chesterfield, in a letter to his son dated March 18, 1750/51, gives a very interesting as well as amusing account of his work in connection with the reform, from which the following is quoted:

"I acquainted you in a former letter that I had brought a bill into the House of Lords for correcting and reforming our present calendar, which is the Julian, and for adopting the Gregorian. I will now give you a more particular account of that affair, from which reflections will naturally occur to you that I hope may

be useful, and which I fear you have not made. It was notorious that the Julian calendar was erroneous and had overcharged the solar year with eleven days. Pope Gregory XIII corrected this error. His reformed calendar was immediately received by all the Catholic powers of Europe, and afterwards adopted by all the Protestant ones except Russia, Sweden and England. It was not in my opinion very honorable for England to remain in a gross and avowed error, especially in such company. The inconvenience of it was likewise felt by all those who had foreign correspondences, whether political or mercantile. I determined, therefore, to attempt the reformation. I consulted the best lawyers and the most skillful astronomers, and we cooked up a bill for that purpose. But then my difficulty began. I was to bring in this bill, which was necessarily composed of law jargon and astronomical calculations, to both of which I am an utter stranger. However, it was absolutely necessary to make the House of Lords think that I knew something of the matter, and also to make them believe that they knew something of it themselves, which they do not. For my own part I might just as soon have talked Celtic or Slavonian to them as astronomy and they would have understood me full as well. So I resolved to do better than speak to the purpose, and to please instead of informing them. I gave them, therefore, only an historical account of calendars from the Egyptian down to the Gregorian, amusing them now and then with little episodes; but I was particularly attentive to the choice of my words, to the harmony and roundness of my periods, to my elocution, to my action. This succeeded and ever will succeed. They thought I informed because I pleased them, and many of them said that I had made the whole very clear to them when, God knows, I had not even attempted it. Lord Macclesfield, who had the greatest share in forming the bill, and who is one of the greatest astronomers and mathematicians in Europe, spoke afterwards with infinite knowledge and all the clearness that so intricate a matter would admit of; but as his words, his periods and his utterance were not near so good as mine, the preference was most unanimously, though most unjustly, given to me."

Although the bill encountered no opposition in Parliament, the people as a whole were far from unanimous in approving it. Lecky, in his *History of England in the Eighteenth Century*, says:

"A widespread irritation was for a time aroused. Much was said about the profanity of altering saint-days and immovable feasts. At the next election, one of the most popular cries against Lord Macclesfield's son was: 'Give us back our eleven days'. When, many years later, Mr. Bradley died of a lingering disease, his sufferings were supposed by the populace to be a judgment due to the part he had taken in the transaction."

In Hogarth's picture of "An Election Entertainment", published in 1755, the followers of one of the candidates are having a glorious celebration, and one of the banners bears the inscription: "Give us our eleven days."

A political ballad of the time began:

In seventeen hundred and fifty-three
The style it was changed to Popery,
But that it is liked we don't all agree,
Which nobody can deny.

When the country folk first heard of this act,
That old Father Time was condemned to be racked
And robbed of his style, which appears to be fact
Which nobody can deny;

It puzzled their brains, their senses perplexed,
And all the old ladies were very much vexed,
Not dreaming that Levites would alter our text,
Which nobody can deny.

In the first line, in order to make a rhyme, the poet has given the wrong year, poetic lie-cense. Another verse ran :

What a whimsical change will be wrought in our isle
By this odd fangled leap-frog of old and new style.
Time hastens his pace, in his boundless career,
To add to the jokes of this marvelous year,
When from Britons eleven broad days took their flight,
And, waking, all swore they had slept but one night.

As the Act introducing the New Style into England also effected the change in this country it is of considerable interest, and a portion of it is quoted as follows :

"An Act for regulating the Commencement of the Year, and for correcting the Calendar now in use.

"Whereas the legal supputation of the year of our Lord in that part of Great Britain called England, according to which the the year beginneth on the 25th day of March, hath been found by experience to be attended with divers inconveniences, not only as it differs from the usage of neighboring nations, but also from the legal method of computation in that part of Great Britain called Scotland, and from the common usage throughout the whole kingdom, and thereby frequent mistakes are occasioned in dates of deeds and other writings, and disputes arise therefrom; and whereas the calendar now in use throughout all His Majesty's British dominions, commonly called the Julian calendar, hath been discovered to be erroneous, by means whereof the vernal or spring equinox, which at the time of the General Council of Nice in the year of our Lord 325, happened on or about the 21st day of March, now happens on the ninth or tenth of the same month.

And whereas a method of correcting the calendar in such manner as that the equinoxes and solstices may for the future fall nearly on the same nominal days on which the same happened at the time of said general council, hath been received and established, and is now generally practiced by almost all other nations of Europe; and whereas it will be of general convenience to merchants and other persons corresponding with other nations and countries, and tend to prevent mistakes and disputes in or concerning the dates of letters and accounts, if the like correction be received and established in His Majesty's dominions. May it therefore please your Majesty that it may be enacted, and be it enacted by the king's most excellent majesty, by and with the advice and consent of the Lords Spiritual and Temporal and Commons in this present Parliament assembled, and by the authority of the same, that in and throughout all His Majesty's dominions and countries in Europe, Asia, Africa and America, belonging or subject to the crown of Great Britain, the said supputation, according to which the year of our Lord beginneth on the 25th day of March, shall not be made use of from and after the said day of December 1751; and that the 1st day of January next following the said last day of December shall be reckoned, taken, deemed and accounted to be the first day of the year of our Lord 1752. . . . and that from and after the said 1st day of January, 1752, the several days of each month shall go on, and be reckoned and numbered in the same order; and the feast of Easter, and other movable feasts thereon depending, shall be ascertained according to the same method as they now are, until the 2nd day of September in the said year 1752, inclusive; and that the natural day next immediately following the said 2nd day of September, shall be called, reckoned and accounted to be the 14th day of September, omitting for that time only the eleven intermediate nominal days of the common calendar.

2. And for the continuing and preserving the calendar or method of reckoning, and computing the days of the year in the same regular course, as near as may be, in all times coming; be it further enacted by the authority aforesaid; that the several years of our Lord 1800, 1900, 2100, 2200, 2300, or any other hundredth years of our Lord, which shall happen in time to come except only every fourth hundredth year of our Lord, whereof the year of our Lord 2000 shall be the first, shall not be esteemed or taken to be bissextile or leap years, but shall be taken to be common years, consisting of 365 days and no more; and that the

years of our Lord 2000, 2400, 2800, and every other fourth hundredth year of our Lord, from the said year of our Lord 2000 inclusive, and also all other years of our Lord, which by the present supputation are esteemed to be bissextile or leap years, shall for the future and in all times to come be esteemed and taken to be bissextile or leap years, consisting of 366 days, in the same sort and manner as is now used with respect to every fourth year of our Lord."

De Morgan, in his *History of the Ecclesiastical Calendar*, speaking of this Act of Parliament, says:

"The Roman Church published a full and correct, if not a clear, account of the reasons which induced it to construct the particular calendar on which we are writing, and of the mode of proceeding. The British Parliament added nothing to the extracts which it gave from the Roman rules, except the following sentence of explanation: 'Easter day, on which the rest depend, is always the first Sunday after the full moon which happens upon, or next after, the 21st day of March, and if the full moon happens upon a Sunday, Easter day is the Sunday after.' But the Parliament either forgot, or did not know, that the bright round or horned body which shines in the heavens, which people call the moon, and which certainly is the moon, neither is, nor ever was, nor (since 1582) was intended to be, nor was asserted to be, the moon of the calendar. On the contrary, all reasonable trouble was taken to make it clear that the moon of the Gregorian calendar was a creation of the Church, which, though allowed to maintain certain relations with the moon of the heavens, was in every particular contrived to suit the convenience of those who invented it. Again, the British Parliament, in common with most astronomers, and many modern writers on the calendar, was not aware that it was not the full moon even of the fictitious moon from which Easter was determined, but the fourteenth day from the day of the new moon inclusive, which was always one day, sometimes two days, before the full moon. . . . It was decidedly clumsy to take the Pope's calendar, and disguise it by stating it to depend on a moon which contradicts it. The man who stole the saucepan and put on a new lid that the owner might not be able to swear to it, took care the new lid should fit."

In *Poor Richard's almanac* for 1752 Benjamin Franklin published the Act in full, and in his address to the reader gave quite a complete history of the calendar, concluding in this way: "This Act of Parliament, as it contains many matters of importance, and extends expressly to all the British colonies, I shall, for the satisfaction of the publick, give at full length: Wishing withal, according to ancient custom, that this New Year, (which is indeed a New Year, such an one as we never saw before, and shall never see again) may be a happy year to all my kind readers."

In *Poor Job's almanac* for 1752, published at Newport by James Franklin, brother of Benjamin, *Poor Job* says:

"We are not to have two beginnings to our years, but the first of January is to be the first day and first month of the year 1752; eleven days are taken from September, and begin 1, 2, 14, 15, etc. Be not much astonished, nor look with concern, dear reader, at such a deduction of days, nor regret as for the loss of so much time; but take this for your consolation, that your expenses will perhaps appear lighter and your mind be more at ease. And what an indulgence is here for those who love their pillows, to lie down in peace on the second of this month, and not perhaps awake, or be disturbed, till the fourteenth in the morning."

Two pages of Benjamin Franklin's *almanac* for 1752, containing the month of September, are shown in facsimile, that month having but nineteen days, the fourteenth following the second. Before the adoption of the New Style the *almanac* began with January marked as

the eleventh month. The beginning of the legal year was then March 25, but January 1 was considered as the beginning of the historic year, as Franklin explains in his history of the calendar. For dates between

SEPTEMBER. IX Month.									
Shall Fruits, which none, but brutal Eyes survey, Untouch'd grow ripe, untasted drop away Shall here th' irrational, the salvage Kind Lord it o'er Stores by Heav'n for Man design'd, And trample what mild-Suns benignly raise, While Man must lose the Use, and Heav'n the Praise Shall it then be? (Indignant here the rose, Indignant, yet humane, her Bosom glows)									
Day	Remark: days, &c.	☉	☿	♂	♂	♂	♂	♂	Aspects, &c.
1	Wind 1666	5	46	6	14	m	10		The sea oblig
2	London burnt,	5	47	6	13	4	17		's rise 8
14	and clouds	5	49	6	11	13	1	with 1/2	7
15	with	5	50	6	10	25	1	10	20
16	Day break 4 24	5	51	0	9	32	7	11	51
17	A 15 past Trin.	5	53	6	7	19			is overmore
18	rain,	5	54	6	6	1			disobliging
19	3 Nativ. V. MARY	5	56	6	4	13	6	8	itself
20	4 then clear	5	57	6	3	25			Hold. you
21	5 St. MATTHEW	5	59	6	1	7			Council
22	6 Days decr. 2 46	6	0	6	0	20	0	in 2	6 2
23	7 * and	6	1	5	59	7	3	before Dinner	
24	A 16 past Trin.	6	3	5	57	16		's rise 8	0
25	2 Holy Rood.	6	4	5	5	29		the full Bell	
26	3 windy.	6	5	5	55	13		hates Thinking	
27	4 Ember Week	6	7	5	53	27	6	8	as with
28	5 Pleasant	6	8	5	52	11		as Atting	
29	6 St. MICHAEL	6	9	5	51	25			
30	7 weather.	6	11	5	49	49	9	12	* 1/2
Second Day of September, the 1st Days of Session and Exchequer and all such Markets, Fairs, and Markets as aforesaid, and all Court incident or belonging thereto, shall be holden and kept upon, or ac- cording to the same Natural Days, upon, or according to which the same should have been so kept or holden, in case this Act had not been made; that is to say, Eleven Days later than the same would have happened, according to the Nominal Days of the said Mo- Supputation of Time, by which the Commencement of each Month and the Nominal Days thereof, are anticipated or brought forward by the Space of Eleven Days; any thing in this Act contained to the contrary thereof in any wise notwithstanding. And whereas, according to divers Customs, Prescriptions, and usages, in certain Places within this Kingdom, certain Lands and Grounds are, on particular Nominal Days and Times in the Year									

FACSIMILE PAGE OF BENJAMIN FRANKLIN'S ALMANAC FOR 1752.

January 1 and March 25, it was customary to write first the year whose beginning was March 25, followed by the corresponding year which began January 1. In the Washington Bible at Mount Vernon the record of Washington's birth is: George Washington was born the

eleventh day of February, 1731/2. A facsimile of this entry may be seen in Woodrow Wilson's Life of Washington.

Mistakes are frequently made by writers who fail to take into con-

SEPTEMBER hath XIX. Days.										
D. H.			Planets Places.							
First Q.	15	8 mor.	D.	☉	☿	♈	♉	♊	♋	D. L.
Full	23	8 mor.		☿	♈	♉	♊	♋	♌	
Last Q.	30	10 mor.	1.	20	19	12	23	27	12 N.	0
S. } 1 m 17 Deg.	22	16	17	25	19	12	26	3	11	4
			22	30	19	13	29	9	8	4
			27	5	19	13	3	16	2 S.	1



D. H.	let.	D. H.	T.
13	54	3	51
29	37	4	39
14	24	5	27
15	17	6	17
16	9	7	10
17	1	8	3
18	15	9	11
19	22	10	18
20	30	11	9
21	10	12	5
22	11	13	4
23	12	14	3
24	A. M.	25	3
25	4	16	4
26	4	12	5
27	2	7	6
28	2	5	7
29	2	3	8
30	3	1	8
31	3	0	9

be opened for Common of Pasture, and other Purposes; and at other Times, the Owners and Occupiers of such Lands and Grounds have a Right to inclose or shut up the same, for their own private Use; and there is in many other Instances, a temporary and distinct Property and Right vested in different Persons, in and to many such Lands and Grounds, according to certain Nominal Days and Times in the Year: And whereas, the anticipating or bringing forward the said Nominal Days and Times, by the Space of eleven Days, according to the said New Method of Supputation, might be attended with many Inconveniencies; Be it therefore further, Declared, Provided, and Enacted, by the Authority aforesaid, That nothing in this Act contained, shall extend, or be construed to extend, to accelerate or anticipate the Days or Times for the opening, inclosing, or shutting up any such Lands or Grounds as aforesaid, or the Days or Times on which any such temporary or distinct Property or Right in or to any such Lands or Grounds as aforesaid is to commence; but that all such Lands and Grounds as aforesaid, shall, from and after the said second Day of September, be, from Time to Time respectively opened, inclosed, or shut up, and such temporary and distinct Property and Right in and to such Lands and Grounds as aforesaid, shall commence and begin upon the same natural Days and Times on which the same should have been so respectively opened, inclosed, or shut up, or would have commenced

For the Convenience of our Readers who may frequently have Occasion to know what Day of the Calendar according to the New Style, corresponds to any particular Day of the Calendar according to the Old Style, we shall henceforth in the last Column of this Paper-band Page set down the Days according to the said Old Style Calendar.

FACSIMILE PAGE OF BENJAMIN FRANKLIN'S ALMANAC FOR 1752.

sideration the difference between the Julian and Gregorian calendars, and mistakes are sometimes made when this difference is taken into account, but in the wrong way. Richard Henry Dana, in his "Two

Years before the Mast", says that in 1835 he was on the coast of California, and the following statement is made:

"Friday, December 25. This day was Christmas, and as it rained all day long, and there were no hides to take in, and nothing especial to do, the Captain gave us a holiday (the first we had had, except Sundays, since leaving Boston), and plum-duff for dinner. The Russian brig, following the Old Style, had celebrated their Christmas eleven days before, when they had a grand blow out, and (as our men said) drank, in the forecastle, a barrel of gin, ate up a bag of tallow, and made a soup of the skin."

There is no possibility of this statement being true as to the time of the Russian sailors celebrating Christmas. In 1855 there was a difference between Old Style and New Style of twelve days instead of eleven, and the Russians would have celebrated their Christmas twelve days *after* the Americans celebrated theirs instead of eleven days *before* as Dana says.

Benjamin Franklin said in Poor Richard that people make mistakes every day for want of minding the almanac.

Victor Hugo, in his book on Shakespeare, says that "April 23, 1616, the same day, almost at the same minute, Shakespeare and Cervantes died. Why were these two flames blown out at the same moment? No apparent reason. A whirlwind in the night."

Cervantes died in Spain April 23, 1616, and Spain was at that time using the Gregorian calendar. Shakespeare died in England April 23, 1616, and England was then using the Julian calendar. The difference between the two calendars was ten days, and therefore when Shakespeare died Cervantes had been dead for ten days. A mistake by Victor Hugo for want of minding the almanac.

The date of the landing of the Pilgrim Fathers was December 11, 1620, Old Style, and as there was then a difference of ten days between the Old and the new Style, this date would have been written, in a country which used the Gregorian calendar, as December 21. In 1769 the Old Colony Club of Plymouth inaugurated the celebration of Forefathers' Day, and as the New Style had been adopted a few years before, they wished to celebrate the landing of the Pilgrims in the very latest style. At that time the difference between the two styles amounted to eleven days, due to the fact that the year 1700 was not a leap year according to the Gregorian calendar, and they therefore, in order to make the change, moved the date forward eleven days and celebrated December 22, which was not in accordance with any style at all, old or new, as an advance of but ten days should have been made giving the correct date December 21. This mistake was pointed out by James Thacher in his History of Plymouth published in 1832.

In Moliere's comedy, "The Shopkeeper turned Gentleman," Mr. Jourdain requests his professor to teach him, not philosophy but the almanac. Writers nowadays ought to follow the example of Mr. Jourdain and include the almanac in their course of studies.

Washington, D. C.

(To be Continued.)